

From: Leidy, Robert []
To: jsimms@blm.gov [jsimms@blm.gov]
CC:
Subject: RE: National Conservation Lands System
Sent:

Hi Jeff,

I've reviewed some of the NCLS documents. [REDACTED] BLM EQUITY [REDACTED]
[REDACTED]

Best,

Rob

Robert A. Leidy, Ph.D.

U.S. Environmental Protection Agency

Wetlands Office (WTR-8)

75 Hawthorne Street

San Francisco, CA 94105

(415) 972-3463

From: Blaine, Marjorie E SPL [B6]
To: Leidy, Robert [Leidy.Robert@epa.gov]
CC: Goldmann, Elizabeth [Goldmann.Elizabeth@epa.gov]; Brush, Jason [Brush.Jason@epa.gov]; Jessop, Carter [JESSOP.CARTER@EPA.GOV]; David.J.Castonon@usace.army.mil [B6]; Diebolt, Sallie SPL [B6]
Subject: RE: RE: Mulberry Canyon parcel - suitability as mitigation (UNCLASSIFIED)
Sent: 18 Sep 2013 22:47:59 +0000

Classification: UNCLASSIFIED
Caveats: NONE

Rob

CORPS EQUITY

Marjorie
Assist us in better serving you!
You are invited to complete our customer survey, located at the following link:
<http://www.spl.usace.army.mil/Missions/Regulatory.aspx>
Note: If the link is not active, copy and paste it into your internet browser.

-----Original Message-----

From: Leidy, Robert [mailto:Leidy.Robert@epa.gov]
Sent: Monday, September 16, 2013 2:36 PM
To: Blaine, Marjorie E SPL
Cc: Goldmann, Elizabeth; Brush, Jason; Jessop, Carter; David.J.Castonon [B6]; Diebolt, Sallie SPL
Subject: [EXTERNAL] RE: Mulberry Canyon parcel - suitability as mitigation

Hi Marjorie,

B5

Best,

Rob

Robert A. Leidy, Ph.D.

U.S. Environmental Protection Agency

Wetlands Office (WTR-8)

75 Hawthorne Street

San Francisco, CA 94105

(415) 972-3463

Classification: UNCLASSIFIED

Caveats: NONE

From: Leidy, Robert []
To: jupchurch01@fs.fed.us [jupchurch01@fs.fed.us]
CC: Vogel, Mindy S -FS [msvogel@fs.fed.us]; Brush, Jason [Brush.Jason@epa.gov]; Goforth, Kathleen [Goforth.Kathleen@epa.gov]; Goldmann, Elizabeth [Goldmann.Elizabeth@epa.gov]; Jessop, Carter [JESSOP.CARTER@EPA.GOV]; Bose, Laura [Bose.Laura@epa.gov]
Subject: RE: Rosemont Mine: trends, weight of evidence and ecological risk
Sent:

Hello Jim,

B5

[REDACTED]

[REDACTED]

B5

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] B5 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] A. Leidy, Ph.D.

U.S. Environmental Protection Agency

Wetlands Office (WTR-8)

75 Hawthorne Street

San Francisco, CA 94105

(415) 972-3463

From: Leidy, Robert []
To: Douglas, Jason [jason_douglas@fws.gov]
CC:
Subject: RE: Rosemont and fish updates
Sent:

Thanks Jason,

[REDACTED]
B5
[REDACTED]

Best,

Rob

Robert A. Leidy, Ph.D.

U.S. Environmental Protection Agency

Wetlands Office (WTR-8)

75 Hawthorne Street

San Francisco, CA 94105

(415) 972-3463

From: Douglas, Jason [mailto:jason_douglas@fws.gov]
Sent: Wednesday, September 18, 2013 1:53 PM
To: Leidy, Robert
Subject: Rosemont and fish updates

Rob,

[REDACTED]

USFWS EQUITY

Please let me know if you have any additional questions.

Take care.

Jason M. Douglas
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Arizona Ecological Services Office
201 North Bonita Street, Suite 141
Tucson, Arizona 85745
(520) 670-6150, extension 226 (voice)
(520) 670-6155 (fax)
<http://www.fws.gov/southwest/es/arizona/>
<<http://www.fws.gov/southwest/es/arizona/>>

From: Leidy, Robert []

To: Marjorie.E.Blaine@usace.army.mil [REDACTED] B6

CC:

Subject: RE: Trip to Las Cienegas National Conservation Area and Cienega Creek Preserve.

Sent:

Hi Margorie,

[REDACTED] B5

Best,

Rob

Robert A. Leidy, Ph.D.

U.S. Environmental Protection Agency

Wetlands Office (WTR-8)

75 Hawthorne Street

San Francisco, CA 94105

(415) 972-3463

From: Leidy, Robert []
To: Blaine, Marjorie E SPI [REDACTED] B6
CC: Goldmann, Elizabeth [Goldmann.Elizabeth@epa.gov]; Brush, Jason [Brush.Jason@epa.gov]
Subject: RE: Trip to Las Cienegas national Conservation Area and Cienega Creek Preserve
Sent:

Hi Margorie,

[REDACTED]
B5

Best,

Rob

[REDACTED]

Robert A. Leidy, Ph.D.

U.S. Environmental Protection Agency

Wetlands Office (WTR-8)

75 Hawthorne Street

San Francisco, CA 94105

(415) 972-3463

From: Leidy, Robert []
To: Vogel, Mindy S -FS [msvogel@fs.fed.us]
CC: Jessop, Carter [JESSOP.CARTER@EPA.GOV]; Goldmann, Elizabeth [Goldmann.Elizabeth@epa.gov]
Subject: RE: requesting pdf of 2012 SWCA memo regarding surface flows in Davidson Canyon
Sent:

Hello Mindy,

I am trying to locate the following memorandum that was referenced in the PAFEIS but does not seem to be readily available on the Coronado or Rosemont websites. Could you please send me a pdf of the memo?

SWCA. Environmental Consultants. 2012. Method for Estimating Flow in Davidson Canyon. Memorandum to file from DeAnne Rietz, SWCA Environmental Consultants. Phoenix, AZ. August 28.

Thanks much,

Rob

Robert A. Leidy, Ph.D.

U.S. Environmental Protection Agency

Wetlands Office (WTR-8)

75 Hawthorne Street

San Francisco, CA 94105

(415) 972-3463

From: Leidy, Robert []
To: Vogel, Mindy S -FS [msvogel@fs.fed.us]
CC:
Subject: RE: requesting pdf of 2012 SWCA memo regarding surface flows in Davidson Canyon.
Sent:

Thanks Mindy...much appreciated!

From: Vogel, Mindy S -FS [mailto:msvogel@fs.fed.us]
Sent: Wednesday, September 18, 2013 2:34 PM
To: Leidy, Robert
Subject: RE: requesting pdf of 2012 SWCA memo regarding surface flows in Davidson Canyon

Hi Rob,

I believe the attached is what you are looking for. Please let me know if there is anything else I can assist with.

Thanks.

From: Leidy, Robert [mailto:Leidy.Robert@epa.gov]
Sent: Wednesday, September 18, 2013 1:15 PM
To: Vogel, Mindy S -FS
Cc: Jessop, Carter; Goldmann, Elizabeth
Subject: RE: requesting pdf of 2012 SWCA memo regarding surface flows in Davidson Canyon

Hello Mindy,

I am trying to locate the following memorandum that was referenced in the PAFEIS but does not seem to be readily available on the Coronado or Rosemont websites. Could you please send me a pdf of the memo?

SWCA. Environmental Consultants. 2012. Method for Estimating Flow in

Davidson Canyon. Memorandum to file from DeAnne Rietz, SWCA
Environmental Consultants. Phoenix, AZ. August 28.

Thanks much,

Rob

Robert A. Leidy, Ph.D.

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From: Vogel, Mindy S -FS [msvogel@fs.fed.us]
To: Leidy, Robert [Leidy.Robert@epa.gov]
CC:
Subject: RE: requesting pdf of 2012 SWCA memo regarding surface flows in Davidson Canyon
Sent: 18 Sep 2013 21:33:37 +0000

Hi Rob,

I believe the attached is what you are looking for. Please let me know if there is anything else I can assist with.

Thanks.

From: Leidy, Robert [mailto:Leidy.Robert@epa.gov]
Sent: Wednesday, September 18, 2013 1:15 PM
To: Vogel, Mindy S -FS
Cc: Jessop, Carter; Goldmann, Elizabeth
Subject: RE: requesting pdf of 2012 SWCA memo regarding surface flows in Davidson Canyon

Hello Mindy,

I am trying to locate the following memorandum that was referenced in the PAFEIS but does not seem to be readily available on the Coronado or Rosemont websites. Could you please send me a pdf of the memo?

SWCA. Environmental Consultants. 2012. Method for Estimating Flow in Davidson Canyon. Memorandum to file from DeAnne Rietz, SWCA Environmental Consultants. Phoenix, AZ. August 28.

Thanks much,

Rob

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Memorandum

To: File

CC:

From: DeAnne Rietz, SWCA

Date: August 28, 2012

Re: Method for estimating flow in Davidson Canyon

The purpose of this memo is to document the method used to estimate post-mine flow in Davidson Canyon at the confluence with Cienega Creek for each of the action alternatives in the Rosemont Copper EIS.

Zeller's 2011 Technical Memo¹ reported model results for both pre- and post-mine flow (for proposed alternative only) to various locations along Davidson Canyon, including the USGS gage at US 83 and at the confluence with Cienega Creek. This technical memo was the basis for estimating Davidson Canyon flows for the remainder action alternatives.

Zeller's reported flows for the proposed alternative shows a 38.2% reduction of average-annual runoff to the USGS gage at US 83 (pre-mine = 1407 ac-ft and post-mine = 869 ac-ft) and a 9.7% reduction in flow at the Davidson Canyon/Cienega Creek confluence (pre-mine = 514 ac-ft and post-mine = 464 ac-ft). The 9.7% reduction at the confluence = 25.4% of the 38.2% reduction at the USGS gage. This ratio of reduced flow in the upper reach of Davidson Canyon to reduced flow at the confluence (25.4%) was then used to estimate post-mine flow for the remainder action alternatives. Results are presented in the table below. Formulas for calculation are shown in brackets.

¹ Zeller, M.E. 2011. Predicted Regulatory (100-yr) Hydrology and Average-Annual Runoff Downstream of the Rosemont Copper Project. July 11.

	MPO	Phased Tailings	Barrel	Barrel Trail	Scholefield- McCleary
(a) pre mine runoff at US 83*	1407	1407	1404	1407	1407
(b) post mine runoff at US 83*	869	784	1162	816	1086
(c) reduction at US 83 [(a-b)/a]	38.24%	44.28%	17.24%	42.00%	22.81%
(d) pre mine runoff at Cienega/Davidson confluence**	514				
(e) post mine runoff at Cienega/Davidson confluence**	464				
(f) reduction at Cienega/Davidson confluence [(d-e)/d]	9.73%				
(g) ratio of reduction in flow at US 83 gage to reduction in flow at Cienega/Davidson confluence [f/c]	25.44%				
(h) reduction at Cienega Davidson confluence based on reduction ratio [g * c]	9.73%	11.26%	4.38%	10.69%	5.80%

* From Krizek 2010a, 2010b, 2010c, 2010d; Chee 2010

** From Zeller 2011

REFERENCES

- Chee, R. 2010. *Expanded Barrel Only Alternative Stormwater Assessment*. Document No. 0/10-320878-5.3. Prepared for Rosemont Copper Company. Tucson, Arizona: Tetra Tech. September 15.
- Krizek, D.R. 2010a. *Technical Memorandum: Barrel and McCleary Alternative Stormwater Assessment*. Document No. 058/10-320871-5.3. Prepared for Rosemont Copper Company. Tucson, Arizona: Tetra Tech. March 5.
- Krizek, D.R. 2010b. *Technical Memorandum: Barrel Only Stormwater Assessment*. Document No. 059/10-320871-5.3. Prepared for Rosemont Copper Company. Tucson, Arizona: Tetra Tech. March 5.
- Krizek, D.R. 2010c. *Technical Memorandum: Mine Plan of Operations Stormwater Assessment*. Document No. 062/10-320871-5.3. Prepared for Rosemont Copper Company. Tucson, Arizona: Tetra Tech. March 5.
- Krizek, D.R. 2010d. *Technical Memorandum: Scholefield Tailings and McCleary Waste Alternative Stormwater Assessment*. Document No. 060/10-320871-5.3. Prepared for Rosemont Copper Company. Tucson, Arizona: Tetra Tech. March 5.
- Zeller, M.E. 2011. *Predicted Regulatory (100-yr) Hydrology and Average-Annual Runoff Downstream of the Rosemont Copper Project*. Tucson, Arizona: Tetra Tech. July 11.

Cienega	Acres	Meters_Sq
Ag Field	4.9436321	20006.178
Cieneguita	8.9770341	36328.796
Cinco Ponds	4.7240622	19117.579
Empire	0.7439965	3010.8522
Oak Tree	0.8047377	3256.6635
Rattlesnake	1.0401143	4209.1914
Springwater	5.4679919	22128.217
Total Area	26.7015688	108057.4771

N

LCNCA Cienegas

Fortynine Wash



Empire Gulch Creek

Cienega Creek A

Gardner Creek A

0 0.150.3 0.6 0.9 1.2 Kilometers

From: Simms, Jeffrey [jsimms@blm.gov]

To: Leidy, Robert [Leidy.Robert@epa.gov]

CC: Daniel Moore [d3moore@blm.gov]; Marcia Radke [mrادke@blm.gov]; Ben Lomeli [blomeli@blm.gov]

Subject: Rosemont FEIS - Partial Information Concerning Wetlands on LCNCA

Sent: 18 Sep 2013 11:20:40 -0

Rob,

Here is the most current data on the wetland inventory that is being done by the Desert Botanical Garden. [REDACTED]

BLM EQUITY [REDACTED]

[REDACTED]

[REDACTED]

Cheers

From: Douglas, Jason [jason_douglas@fws.gov]
To: Leidy, Robert [Leidy.Robert@epa.gov]
CC:
Subject: Rosemont and fish updates
Sent: 18 Sep 2013 13:53:23 -0

Rob,

[REDACTED]

USFWS EQUITY

[REDACTED]

[REDACTED]

Please let me know if you have any additional questions.

Take care.

Jason M. Douglas
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Arizona Ecological Services Office
201 North Bonita Street, Suite 141
Tucson, Arizona 85745
(520) 670-6150, extension 226 (voice)
(520) 670-6155 (fax)
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f [REDACTED]